

**Listing of Claims:**

Claims 1-16 (canceled)

Claim 17 (currently amended): An isolated nucleic acid molecule comprising no more than 10,000 nucleotides, wherein said nucleic acid molecule encodes an artemin amino acid sequence that has biological activity of artemin, and wherein said artemin amino acid sequence is at least 88% identical to SEQ ID NO:26, and wherein said artemin amino acid sequence promotes survival of neurons, wherein said The-isolated and purified nucleic acid molecule ~~of claim 15 comprising~~ comprises a nucleotide sequence encoding an artemin polypeptide comprising SEQ ID NO:3, SEQ ID NO:4, SEQ ID NO:5, SEQ ID NO:19, SEQ ID NO:34, SEQ ID NO:35 or SEQ ID NO:36.

Claim 18 (currently amended): The isolated and purified nucleic acid molecule of claim 17 comprising a nucleotide sequence as set forth in SEQ ID NO:6, SEQ ID NO:7, SEQ ID NO:8, SEQ ID NO:37, SEQ ID NO:38, SEQ ID NO:39 or SEQ ID NO:44.

Claims 19-20 (canceled)

Claim 21 (currently amended): An isolated nucleic acid molecule comprising no more than 10,000 nucleotides, wherein said nucleic acid molecule encodes an artemin amino acid sequence that has biological activity of artemin, and wherein said artemin amino acid sequence is at least 88% identical to SEQ ID NO:26, and wherein said artemin amino acid sequence promotes survival of neurons, wherein The-said isolated and purified nucleic acid molecule ~~of claim 15 comprising~~ comprises ATCC deposit number 203559 made on December 22, 1998.

Claim 22: A host cell transformed with the vector of claim 21.

Claim 23: An isolated and purified nucleic acid molecule comprising no more than 10,000 nucleotides, wherein said nucleic acid molecule encodes a polypeptide selected from the group consisting of SEQ ID NOS: 3, 4, 5, 26, 29, 32, 33, 34, 35, 40 and 41, wherein said polypeptide promotes survival of neurons.

Claim 24: The isolated and purified nucleic acid molecule of claim 23 comprising a human pro-artemin nucleotide as set forth in SEQ ID NO:42, a human pre-pro-artemin nucleotide as set forth in SEQ ID NO:24, SEQ ID NO:30 or SEQ ID NO:44, a mouse pro-artemin nucleotide as set forth in SEQ ID NO:43, or a mouse pre-pro-artemin as set forth in SEQ ID NO:27.

Claims 25-26 (canceled)

Claim 27: An isolated nucleic acid molecule comprising a polynucleotide encoding:

- (a) a pre- region of artemin as set forth in SEQ ID NO:54 or SEQ ID NO:55;
- (b) a pro- region of artemin as set forth in SEQ ID NO:56 or SEQ ID NO:57; or
- (c) a pre-pro- region of artemin as set forth in SEQ ID NO:58 or SEQ ID NO:59.

Claims 28-39 (canceled)

Claim 40: The isolated and purified nucleic acid molecule of claim 17 comprising a nucleotide sequence encoding an artemin polypeptide as set forth in SEQ ID NO:19.